

USDA/NRCS Plant Materials Program

Providing plants to address today's environmental challenges



A field in the USDA Conservation Reserve Program (CRP) planted with native grass and wildflower varieties released by the USDA Natural Resources Conservation Service Plant Materials Program.

Plant Materials Program

USDA Natural Resources Conservation Service

Washington, DC • 202-720-0536

www.plant-materials.nrcs.usda.gov

Key Personnel

Washington, DC

- Robert Escherman, National Program Leader

Beltsville, MD

- John Englert, Manager/Horticulturist
- Shawn Belt, Horticulturist
- R. Jay Ugiansky, Resource Conservationist
- Daniel Dusty, Farm Manager

Agency Highlights

- First new cultivars for erosion control were released in the 1930's. Today's new cultivars and local ecotypes are for coastal restoration, water quality and quantity, wildlife habitat, grazing land, etc.
- The Plant Materials Program (PMP)

comprises a nationwide network of 26 Plant Materials Centers and 17 Plant Materials Specialists.

- PMP has released more than 500 commercially available improved grasses, legumes, forbs, wildflowers, trees and shrubs for conservation uses.

- Commercial production of PMP releases exceeded \$93 million in 2001.

- Provides plant recommendations and technology for conservation programs including Conservation Reserve Program (CRP), Environmental Quality Incentives Program (EQIP), Wildlife Habitat Incentives Program (WHIP) and Wetlands Reserve Program (WRP).

The Plant Materials Program within USDA's Natural Resources Conservation Service has come a long way since the Dust Bowl years of the 1930s. In those days, USDA set up a number of Soil Conservation Nurseries throughout the United States to grow and distribute plants to control soil erosion.

These nurseries eventually became part of the Plant Materials Program, which today identifies, collects, tests, selects, and releases native and introduced plants for various conservation applications.

The growing number of conservation applications for PMP releases include coastal and streambank stabilization, water quality and quantity enhancement, wildlife food and habitat establishment, mine reclamation, grazing land, wildfire rehabilitation, carbon sequestration and more, says Robert Escherman, national program leader for the Plant Materials Program.

In addition to releasing grasses, legumes, forbs, wildflowers, trees and shrubs (more than 500 over the last 65 years), the program updates planting guides and publishes various written materials, including a number of fact sheets.



PMP Plant Materials Center, Bridger, MT

The PMP Field Office Technical Guide (FOTG) is the primary technical reference used in conservation programs and by landowners.

"The PMP works with the commercial seed and nursery industries to develop and release plant materials for commercial availability," says Escheman. "We value these industry relationships, such as those with seed companies." Escheman stresses that the program has the proper procedures in place to test plants and "work out the bugs" necessary to produce seed with acceptable germination.

Escheman encourages the seed industry to continue marketing seed of conservation plants that the program and its collaborators have tested.

PMP Commercialized Releases

Commercial production of the Plant Material Program's releases exceeded \$93 million in 2001, which illustrates the huge economic value to growers, distributors and retailers. Also in 2001, the seed produced from the Program's releases was enough to plant 3.7 million acres.

Testing plant materials, particularly local ecotypes that are in such great demand now, will continue to be a challenge for the program as high demand for local ecotypes is holding steady and

adequate testing of them takes time, says Escheman.

Invasive Species Issues

The PMP is addressing the invasive species issue, and is involved with 54 direct and 146 indirect studies at the various PMP Centers. Direct studies address controlling or suppressing invasive species while indirect studies find suitable replacements or improve native species cover to help prevent infestation.

NRCS has an Information and Resources CD summarizing some of the studies at Plant Materials Centers.

The Plant Materials Centers ensure the shipment of plant materials is in compliance with county, state or federal laws relative to invasive plants. It is NRCS' responsibility to ensure that no species is recommended in a conservation plan that is listed on official county, state or federal noxious and/or invasive species lists.

One of NRCS' roles, however, is recognizing that many introduced species are not invasive, and "that some of these are among the best plants for conservation, forage production and agronomic purposes," says Escheman.

Another mission of the Plant Materials Program is to provide plant recommendations and technology for programs, such as the Farm Bill (e.g., Conservation Reserve Program, Environmental Quality Incentives Program, Wildlife Habitat Incentives Program and Wetlands Reserve Program).

Plant recommendations and technology are included in the FOTG and become standards for conservation practices implemented on public and private lands. NRCS reports that more than 70 percent of the plant species listed in the FOTG was released by the Plant Materials Program.

In addition to working with seed multipliers and marketers, the Plant Materials Program staff attends national and regional seed meetings. Escheman notes that plans are in the works for a joint training session that will likely be held at one of the Plant Materials Centers or a commercial nursery.

Industry Cooperation

Plans also are underway for the annual meeting between the American



Bison big bluestem (*Andropogon gerardii*)
USDA/NRCS photo



Tomahawk Indiangrass (*Sorghastrum nutans*)
USDA/NRCS photo

Plant Materials Center National Locations

National Center

- Beltsville, MD

Regional Centers

- Palmer, AK
- Booneville, AR
- Tucson, AZ
- Lockeford, CA
- Meeker, CO
- Brooksville, FL
- Americus, GA
- Hoolehua, HI
- Aberdeen, ID
- Manhattan, KS
- Galliano, LA
- East Lansing, MI
- Elsberry, MO
- Coffeetown, MS
- Bridger, MT
- Bismarck, ND
- Cape May, NJ
- Los Lunas, NM
- Big Flats, NY
- Corvallis, OR
- Kingsville, TX
- Knox City, TX
- Nacogdoches, TX
- Pullman, WA
- Alderson, WV



Alpine timothy (Phleum alpinum) seed production field, Bridger, MT Plant Materials Center.

Seed Trade Association and the NRCS, the Bureau of Land Management, the National Park Service, the U.S. Forest Service, and Fish & Wildlife. One of the purposes of this meeting is to strategize how these organizations will work together to provide adequate native plant seed for restoration projects.

One of Escherman's goals over the next few years is to reintroduce a few training classes that the Plant Materials Pro-

gram once offered. These classes address subjects such as ecology of warm season grasses, ecology of cool season grasses, statistics and biology of trees and shrubs.

Another goal is to add more staff to the Centers. This year, Escherman plans to hire three interns for 18-month to two-year internships. As with all government programs, however, there are budget constraints. The federal budget provides just a small part of the funding for the Plant Materials Program. Many of the centers have cost reimburse-

ment programs for their plant releases.

The Plant Materials Program has indeed evolved over the last 65 years, and will continue to actively address conservation problems. It started with soil conservation. Tomorrow, it may be helping to improve air quality and absorbing toxins in brownfield sites. Whatever the issue, the Plant Materials Program will be there to help find solutions.

Lynn Grooms, Grooms Communications, Mt. Horeb, Wis., is an independent agricultural journalist and a contributor to Seed Today.

For more information:

USDA Natural Resources Conservation Service Plant Materials Program (PMP)
Washington, DC (202-720-0536/
www.plant-materials.nrcs.usda.gov)



Woolypod vetch (Lana Vicia villosa ssp. varia) USDA/NRCS photo